WHAT IS CLAIMED IS:

1. A method for defining a three-dimensional structure comprising a plurality of material layers between upper and lower substrates through computer simulation using input data of mask layout, wherein the three-dimensional structure is defined during the computer simulation by depositing material layers on the upper and lower substrates acting as reference base planes, respectively, and sandwiching an intermediate insertion layer between the upper and lower substrates with the material layers thereon facing each other, in particular, when at least one of the material layers has a tapered region (which will be referred to as an "tapered material layer"), which is not parallel to the upper and lower substrates and is inclined to the base planes.

2. The method as set forth in Claim 1, comprising the steps of:

a) designating a certain material layer as the intermediate insertion layer among the plurality of material layers formed between the upper and lower substrates, followed by designating parameters including a thickness of the intermediate insertion layer and/or a kind

of material thereof;

b) designating information of a name, a kind of material, a thickness, and an associated mask for each of the plurality of material layers deposited onto the upper substrate and the lower substrate formed at upper and lower surfaces of the three-dimensional structure with the intermediate insertion layer formed at the center between the upper and lower substrates, and information of a taper angle of the tapered material layer when the at least one of the material layers has the tapered region, which is not parallel to the upper and lower substrates and is inclined to the base planes, followed by defining a deposition sequence for the material layers on the upper and lower substrates, respectively; and

c) determining whether each of the material layers is formed by use of polygons defining a mask layout object defined for the associated mask as a lower surface of the material layer or by use of remaining regions as the lower surface of the material layer except for the polygons defining the mask layout object defined for the associated mask.

3 The method as set forth in Claim 1,

comprising the steps of:

a) forming an internal polygon within a polygon defining a mask layout object for a mask having a designated taper angle, the internal polygon having a size smaller than the polygon defining the mask layout object while having the same shape and sequence of apexes as those of the polygon defining the mask layout object, followed by forming side polygons dividing a planar space between the internal polygon and the polygon defining the mask layout object by connecting the apexes of the internal polygon to the associated apexes of the polygon defining the mask layout object such that the apexes having the same sequences are connected to each other from the internal polygon to the polygon defining the mask layout object;

b) forming lines at both sides of edges of each of polygons defining a mask layout object defined for another mask except for the mask having the designated taper angle so as to be parallel to both sides of the edges of each of the polygons at an overlap region between the polygons defining the mask layout object defined for the other mask except for the mask having the designated taper angle and the polygon defined for the mask having the designated taper

angle, followed by dividing the polygon defined for the mask having the designated taper angle by use of the lines;

c) when forming the material layer using a mask without the designated taper angle or the material layer formed without a designated mask according to information of a deposition sequence for the material layers on the lower substrate, depositing a material for the material layer using the mask without the designated taper angle to have a thickness designated by a user upward from an upper surface of the material layer previously defined on the lower substrate

d) when forming the material layer using the mask having the designated taper angle according to the information of the deposition sequence of the material layers on the lower substrate, defining the mask layout object as a lower surface of the material layer using the mask having the designated taper angle over the upper surface of the material layer previously defined on the lower substrate, the internal polygon of the mask layout object as an upper surface of the material layer using the mask having the designated taper angle at a position spaced a predetermined thickness upward from the upper

surface of the material layer previously defined on the lower substrate, and the side polygons of the mask layout object as side surfaces of the material layer using the mask having the designated taper angle, respectively, followed by depositing a new material for the material layer formed using the mask having the designated taper angle in a region surrounded by the polygon of the lower surface, the polygon of the upper surface, and the polygons of the side surfaces;

e) when forming the material layer using the mask without the designated taper angle or the material layer formed without using the designated mask according to the information of the deposition sequence of the material layers on the upper substrate, depositing another new material for the material layer formed using the mask without the designated taper angle or the material layer formed without using the designated mask to have a predetermined thickness downward from a lower surface of the material layer previously defined on the upper substrate;

f) when forming the material layer using the mask having the designated taper angle according to information of a deposition sequence of the

material layers on the upper substrate, defining the mask layout object as an upper surface of the material layer using the mask having the designated taper angle over the lower surface of the material layer previously defined on the upper substrate, the internal polygon of the mask layout object as a lower surface of the material layer using the mask having the designated taper angle at a position spaced a predetermined thickness downward from the lower surface of the material layer previously defined on the upper substrate, and the side polygons of the mask layout object as side surfaces of the material layer using the mask having the designated taper angle, respectively, followed by depositing another new material for the material layer formed using the mask having the designated taper angle in a region surrounded by the polygon of the upper surface, the polygon of the lower surface, and the side surfaces;

g) when forming the material layer using the mask having the designated taper angle according to the information of the deposition sequence of the material layers on the upper substrate, depositing another new material for the material layer downwardly, the material layer using the mask layout object as an upper surface of the

material layer using the mask having the designated taper angle on the lower surface of the material layer previously defined on the upper substrate, the internal polygon of the mask layout object as a lower surface of the material layer using the mask having the designated taper angle at a position spaced the predetermined thickness downward from the lower surface of the material layer previously defined on the upper substrate, and the side polygons of the mask layout object as side surfaces of the material layer using the mask having the designated taper angle;

h) displacing the upper substrate upward such that the highest apex among the apexes of the polygons constituting the upper surface of the defined lower substrate is located at a position spaced a thickness of the crystal liquid region designated by the user from the lowest apex among the apexes of the polygons constituting the upper surface of the defined lower substrate; and

i) filling a space between the upper substrate and the lower substrate with the intermediate insertion layer.